

 (TM)

Release 2.1D John F. Collins, Biocomputing Research Unit.
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MSearch protein - protein database search, using Smith-Waterman algorithm
 on: Wed Aug 20 09:52:47 1997; MasPar time 19.04 Seconds
 576.613 Million cell updates/sec
 Tabular output not generated.

Title: >US-08-469-637A-2
 Description: (22-401) from US08469637A.pep (2 of 2)
 Perfect Score: 2861
 Sequence: 1 ETPPPKLYHDETSQQLC.....OKLFLEMIGNOVSKISCL 380

Scoring table:
 PAM 150
 Gap 11

Searched: 91006 seqs, 28888923 residues

Post-processing: Minimum Match 0%
 Listing first 45 summaries

Database:

pir51
 1:ann1 2:ann2 3:ann3 4:ann4 5:unann1 6:unann2 7:unann3
 8:unann4 9:unann5 10:unann6 11:unann7 12:unann8
 13:unann9 14:unann10 15:unann16:unannrev

Statistics: Mean 46.240; Variance 103.115; scale 0.448

Pred. No. is the number of results predicted by chance to have a
 score greater than or equal to the score of the result being printed,
 and is derived by analysis of the total score distribution.

SUMMARIES

Result	No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	398	13.9	451	6	A35356		tumor necrosis facto	7.85e-47
2	377	13.2	459	14	A48854		gene mutine tumor n	3.33e-43
3	375	13.1	474	6	B38534		tumor necrosis facto	7.36e-43
4	303	10.6	277	13	A46071		B-cell activation pr	1.19e-30
5	294	10.3	289	14	A46515		B-cell-associated su	3.73e-29
6	294	10.3	305	14	A46476		CD40 - mouse	4.86e-25
7	269	9.4	326	2	GOVZML		T2 protein - myxoma	1.41e-23
8	260	9.1	335	6	B43692		T2 protein - rabbit	1.41e-23
9	260	9.1	435	13	154182		tumor necrosis facto	8.98e-19
10	230	8.0	138	16	S32385		gene G4R protein - v	2.33e-17
11	230	8.0	349	8	D36858		tumor necrosis facto	2.33e-17
12	221	7.7	454	14	I57826		tumor necrosis facto	2.33e-17
13	221	7.7	454	2	GOMST1		tumor necrosis facto	2.33e-17
14	220	7.7	461	2	GOMRT1		tumor necrosis facto	2.33e-17
15	215	7.5	416	6	JN0006		nerve growth factor	2.01e-16
16	213	7.4	427	2	GQHUN		nerve growth factor	4.11e-16
17	207	7.2	425	6	A26431		nerve growth factor	5.33e-12
18	176	6.5	461	14	JC4302		tumor necrosis facto	8.20e-11
19	178	6.2	595	13	A42086		CD30 antigen precurs	6.21e-10
20	172	6.0	455	2	GOHUT1		tumor necrosis facto	1.72e-08
21	162	5.7	260	2	A46517		CD27 antigen precurs	1.72e-08

22	159	5.6	256	14	B32393		T-cell antigen 4-1BB	4.60e-08
23	154	5.4	324	14	JC2395		Fas antigen - rat	2.33e-07
24	146	5.1	271	14	S12783		Ox40 antigen precurs	3.01e-06
25	144	5.0	272	14	I48700		gene ox40 protein -	5.65e-05
26	141	4.9	255	13	JT0752		lymphocyte activatio	1.44e-05
27	140	4.9	335	13	A38142		Apo-1 antigen, Fas a	1.97e-05
28	137	4.8	327	14	A46484		apoptosis-mediated	4.98e-05
29	134	4.7	250	2	A49053		CD27 antigen precurs	1.25e-04
30	134	4.7	314	13	I37383		Fas soluble protein	1.25e-04
31	134	4.7	335	13	A40036		apoptosis-mediated	2.48e-03
32	124	4.3	103	8	J01791		Salp16R protein - va	2.48e-03
33	124	4.3	103	8	A42523		A53R protein - vaccl	3.31e-02
34	115	4.0	360	11	S48365		hypothetical protein	1.33e-01
35	110	3.8	335	11	B34576		D2 protein precursor	1.33e-01
36	105	3.7	2813	3	VWHU		von Willebrand facto	5.14e-01
37	103	3.6	344	13	S61037		hypothetical protein	6.71e-01
38	104	3.6	614	12	S43427		intermediate filamen	1.14e+00
39	102	3.6	3084	3	MMMSA		lamelin chain A prec	1.91e+00
40	100	3.5	132	13	S57566		Fas/Apo-1/CD95 prote	1.91e+00
41	100	3.5	149	11	S58662		Fas-Delta-(4,7) prot	1.91e+00
42	101	3.5	713	11	JC6012		glutamine-fructose-	1.47e+00
43	101	3.5	1122	12	S64443		probable membrane pr	1.91e+00
44	100	3.5	2677	13	A38194		desmoplakin I - huma	3.19e+00
45	98	3.4	1947	3	S05697		myosin heavy chain C	3.19e+00

ALIGNMENTS

RESULT	1	ALIGNMENTS
ENTRY	A35356	#type complete
TITLE	tumor necrosis factor receptor type 2 precursor - human	
ALTERNATE_NAMES	75K tumor necrosis factor receptor	
ORGANISM	#formal_name Homo sapiens #common_name man	
DATE	14-Sep-1990 #sequence_revision 14-Sep-1990 #text_change 22-Nov-1996	
ACCESSIONS	A35356; A36475; A48416; A36007; A25666; B35010; I38094	
REFERENCE	A35356	
#authors	Smith, C.A.; Davis, T.; Anderson, D.; Solam, L.; Beckmann, M.P.; Jerry, R.; Dower, S.K.; Cosman, D.; Goodwin, R.G.	
#journal	Science (1990) 248:1019-1023	
#title	A receptor for tumor necrosis factor defines an unusual family of cellular and viral proteins.	
#cross-references	W01D:90260539	
#accession	A35356	
#status	Preliminary	
#molecule_type	mRNA	
#residues	1-461 ##label SMI	
REFERENCE	A36475	
#cross-references	GB:M32315	
#authors	Kohn, T.; Brewer, M.T.; Baker, S.L.; Schwartz, P.E.; King, M.W.; Hale, K.K.; Squires, C.H.; Thompson, R.C.; Vannice, J.L.	
#journal	Proc. Natl. Acad. Sci. U.S.A. (1990) 87:8331-8335	
#title	A second tumor necrosis factor receptor gene product can shed a naturally occurring tumor necrosis factor inhibitor.	
#cross-references	W01D:91045991	
#accession	A36475	
#status	Preliminary	
#molecule_type	mRNA	
#residues	1-195, 'R', 197-461 ##label KOH	
REFERENCE	A48416	
#authors	Dembic, Z.; Loetscher, H.; Gubler, U.; Pan, Y.C.; Lahm, H.W.; Gentz, R.; Brockhaus, M.; Lesslauer, W.	
#journal	Cytokine (1990) 2:231-237	
#title	Two human TNF receptors have similar extracellular, but distinct intracellular, domain sequences.	
#cross-references	W01D:91370690	
#accession	A48416	
#status	Preliminary	
#molecule_type	mRNA; protein	
#residues	23-461 ##label DEM	
#cross-references	NCBIN:63371	


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REFERENCE      A40254
#authors       Goodwin, R.G.; Anderson, D.; Jerzy, R.; Davis, T.; Brannan,
#journal       C.T.; Copeland, N.G.; Jenkins, N.A.; Smith, C.A.
#title         Mol. Cell. Biol. (1991) 11:3020-3026
#cross-references EMBL:X81128
#accession     M01. Cell. Biol. (1991) 11:3020-3026
#molecule_type mRNA
#residues      Murine cloning and expression of the type 1 and type 2
#cross-references MIMD:91246168
#accession     A40254
#molecule_type mRNA
#residues      1-474 #label GOO
#cross-references GB:M60469
REFERENCE      S54816
#authors       Kisonerghis, M.; Fellowes, R.; Feldmann, M.; Chernajovsky,
#submission    Y.
#description    submitted to the EMBL Data Library May 1995
#accession     S54816
#molecule_type DNA
#residues      1-22 #label KIS
#cross-references EMBL:X87128
CLASSIFICATION #superfamily tumor necrosis factor receptor type 2; NGF
                receptor repeat homology
FEATURE
1-22           #domain signal sequence #status predicted #label SIG\
23-474         #product tumor necrosis factor receptor type 2 #status
40-77          #predicted #label MAT\
79-120         #domain NGF receptor repeat homology #label NG1\
166-203        #domain NGF receptor repeat homology #label NG2\
               #domain NGF receptor repeat homology #label NG4
SUMMARY        #length 474 #molecular-weight 50319 #checksum 7767

Query Match    13.1%; Score 375; DB 6; Length 474;
Best Local Similarity 41.5%; Pred. No. 7.36e-43;
Matches 66; Conservative 21; Mismatches 61; Indels 11; Gaps 7;

Db 52 qmccakppgyvvhfncfscdvcaadceasmYtgywngftrclscscsctdgyelrac 111
   |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:|
Qy 38 QILDCKCPPEGYTLKHOTAKRWKVCAPCPDHYTDSMHSDECLCSPYCKELGYKQEC 97
   |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:|

Db 112 tkgnrycaacagrycaltkhsgscrgcmllskcpgfgfvassirpnygvlckacaptf 171
   |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:|
Qy 98 NRTNRPCECEEGRY--LEIEF--CLKH-R-S-CPGFEVQAGTPERNYVCKRCPDGFF 150
   |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:|

Db 172 sdtsstdvcrphrcisi--laip--gnastdvcapes 206
   |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:|
Qy 151 SNETSSKAPCKRHNCSEVFLLLTLQKGMATHDHCISGS 169
   |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:| |:|

RESULT 4
ENTRY      A60771 #type complete
TITLE      B-cell activation protein Cpd4 precursor - human
ALTERNATE_NAMES B-cell surface antigen Bp50
ORGANISM   Homo sapiens #common_name man
DATE       03-Jun-1993 #sequence_revision 03-Feb-1994 #text_change
          06-Sep-1996
ACCESSIONS S04460; S04671
REFERENCE   S04460
#authors    Stamenkovic, I.; Clark, E.A.; Seed, B.
#journal    EMBO J. (1989) 8:1403-1410
#title      A B-lymphocyte activation molecule related to the nerve
            growth factor receptor and induced by cytokines in
            carcinomas.
#cross-references MIMD:89356608
#accession  S04460
#molecule_type mRNA
#residues   1-277 #label STA
#cross-references EMBL:X60592
REFERENCE   A60771
#authors    Briesch-Andersen, S.; Paulie, S.; Koho, H.; Nika, H.;
            Aspenstroem, P.; Perlmann, P.
#journal    J. Immunol. (1989) 142:562-567

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#title      Biochemical characteristics and partial amino acid sequence
             of the receptor-like human B cell and carcinoma antigen
             CDw40.
#accession  A60771
#molecule_type protein
##residues  21-50 #label BRA
##experimental_source Burkitt lymphoma cell line Raj1
GENETICS
#gene       GDB:CD40
##cross-references GDB:215268
#map_position 20q12-20q13.2
KEYWORDS    B-cell; glycoprotein; phosphoprotein; transmembrane protein
FEATURES
1-20
21-277
21-193     #domain signal sequence #status predicted #label SIG\
194-215     #product B-cell activation protein CD40 #status
216-277     experimental #label MAT\
153,180     #domain extracellular #status predicted #label EXT\
            #domain transmembrane #status predicted #label TMN\
            #domain intracellular #status predicted #label CYT\
            #binding_site carbohydrate (Asn) (covalent) #status
            predicted
SUMMARY
Query Match          10.6%; Score 303; DB 13; Length 277;
Best Local Similarity 36.8%; Pred. No. 1,19e+30;
Matches 56; Conservative 21; Mismatches 67; Indels 8; Gaps 7;

Db 38 csLcpggklysdctetfeteclpcgsesfidtwrethchqhkycdpn-1glr-vyqxg 95
   ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Oy 41 CDKPCPGYGLKHQCTAKMKTYCACPCHPHYTTDSMHTDEC-L--YCSPVCKELQIVNQEC 97
   ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Db 96 tsetdlitcctceagwhctseacscvllnrscspgfgyvkqiatysdltcepcpygffsnvs 155
   : : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
Oy 98 NRTNRHVCCEKEGKY-L-EI-EFCLTKRSCPPGGGVAGHPERNTCRKCPODFEFNET 154
   : : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :

Db 156 safekchpwtsckelilyvggaqcnktcdvcg 187
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
Oy 155 SSKAPCRKRHTNGSVFGLLTGKNATHDNICs 186
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :

RESULT      5
ENTRY       A46515 #type complete
TITLE       B cell-associated surface molecule CD40 - mouse
ORGANISM    Mus musculus #common_name house mouse
DATE        18-Jun-1993 #sequence_revision 18-Nov-1994 #text_change
            03-Mar-1995
ACCESSIONS  A46515
REFERENCE    A46515
AUTHORS      Grimaldi, J.C.; Torres, R.; Kozak, C.A.; Chang, R.; Clark,
            E.A.; Howard, M.; Cockayne, D.A.
#journal     J. Immunol. (1992) 149:3921-3926
#title       Genomic structure and chromosomal mapping of the murine CD40
            gene.
#cross-references MIMD:93094586
#accession  A46515
#status      preliminary; not compared with conceptual translation
#molecule_type nucleic acid
##residues  1-289 #label GRI
##cross-references NCBI:P120357
##experimental_source BALB/c, liver
#note        sequence extracted from NCBI backbone
SUMMARY      #length 289 #molecular-weight 32111 #checksum 579

Query Match          10.3%; Score 294; DB 14; Length 289;
Best Local Similarity 38.8%; Pred. No. 3,78e+29;
Matches 59; Conservative 20; Mismatches 65; Indels 8; Gaps 6;

Db 38 cdlcgpsrltshctaletqchpdcsgfsaqwmreirchqhncpepn-qglr-vkkeg 95
   ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Oy 41 CDKCPGPGYGLKHQCTAKMKTYCACPCHPHYTTDSMHTDEC-LV--CSPVCKELQIVNQEC 97
   ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Db 96 taesdvctckegghnctskdeaceaghtprclpfgyvmematettldchpcpygffsnvs 155
   : ||||| | : | : | | | | | : | : | | | | | : | | | | | | | | :

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QY      98 NRTNHRVCECKEGRY-L--EIFELKHKRSCPPGFGVYQAGTPEBNTVCKRCPDGFSENRT 154
Db      156 slfekeypwtscedknlvlgktsqtnvlg 187
QY      155 SSRAPCRKHTNCVFGLLTQKGNATHDNICS 186

RESULT  6
ENTRY   A46476 #type complete
TITLE   CD40 mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE     18-Jun-1993 #sequence_revision 18-Nov-1994 #text_change
18-Nov-1994
ACCESSIONS
REFERENCE A46476
#authors Torres, R.M.; Clark, E.A.
#journal J. Immunol. (1992) 148:620-626
#title Differential increase of an alternatively polyadenylated mRNA
#cross-references MIM:92105763
#accession A46476
#status preliminary
#molecule_type mRNA
#residues 1-305 #label TOR
#cross-references NCBIN:75206; NCBI:75207
#note sequence extracted from NCBI backbone
SUMMARY #length 305 #molecular-weight 33617 #checksum 5203

Query Match
Best Local Similarity 10.3%; Score 294; DB 14; Length 305;
Matches 59; Conservative 20; Mismatches 65; Indels 8; Gaps 6;

Db      38 cdlogpsrllstlalekqgchpdcgsfsgaqrnlrqbhncpn-gqlr-vkqeg 95
QY      41 CDCPPGTLYKQHTAKWTKVCAPCPDHYTDSWHTSDCLY-CSPVCKELQYVAKQEC 97
Db      96 taesdvtcckeghctskceacqhtpcldpfgymematetdtychpovgffsngs 155
QY      98 NRTNHRVCECKEGRY-L--EIFELKHKRSCPPGFGVYQAGTPEBNTVCKRCPDGFSENRT 154
Db      156 slfekeypwtscedknlvlgktsqtnvlg 187
QY      155 SSRAPCRKHTNCVFGLLTQKGNATHDNICS 186

RESULT  7
ENTRY   G0VZML #type complete
TITLE   T2 protein - myxoma virus (strain Lausanne)
ORGANISM #formal_name myxoma virus
DATE     31-Dec-1992 #sequence_revision 31-Dec-1992 #text_change
26-Apr-1996
ACCESSIONS
REFERENCE A40566
#authors Upton, C.; Macen, J.L.; Schreiber, M.; Mcfadden, G.
#journal Virology (1991) 184:370-382
#title Myxoma virus expresses a secreted protein with homology to
the tumor necrosis factor receptor gene family that
contributes to viral virulence.
#cross-references MIM:9135768
#accession A40566
#molecule_type DNA
#residues 1-326 #label UPT
#cross-references GB:M37976
CLASSIFICATION #superfamily myxoma virus T2 protein; NGF receptor repeat
homology
glycoprotein
KEYWORDS
FEATURE 64-105 #domain NGF receptor repeat homology #label NG2\
106-147 #domain NGF receptor repeat homology #label NG3\
66,181,205,238 #binding_site cardonhydrate (Asn) (covalent) #status
predicted
SUMMARY #length 326 #molecular-weight 35208 #checksum 9255

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Query Match
Best Local Similarity 9.4%; Score 269; DB 2; Length 326;
Matches 47; Conservative 25; Mismatches 58; Indels 9; Gaps 8;

Db      40 ctcpqsyasrlcpgsdvtcspcknetflastnapacvscrgcthlsegsdct 99
QY      41 CDCPPGTLYKQHTAKWTKVCAPCPDHYTDSWHTSDCLY-CSPVCKELQYVAKQECNRT 100
Db      100 rdtvdcsgsnvllkqgqgcrickcpagys-ghttgatvlckcpkytsdav 158
QY      101 HNRVCECKEGRY--LE-IEFC-L-KHRS-CPPGFGVYQAGTPEBNTVCKRCPDGFSENRT 154
Db      159 ssetctcsfnysvfevl 177
QY      155 SSRAPCRKHTNC-SV-FGL 171

RESULT  8
ENTRY   B43692 #type complete
TITLE   T2 protein - rabbit fibroma virus
ORGANISM #formal_name rabbit fibroma virus, Shope fibroma virus
DATE     30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change
26-Apr-1996
ACCESSIONS
REFERENCE B43692
#authors Upton, C.; Delange, A.M.; Mcfadden, G.
#journal Virology (1987) 160:20-30
#title Tumorigenic poxviruses: genomic organization and DNA sequence
of the telomeric region of the Shope fibroma virus genome.
#accession B43692
#status preliminary
#molecule_type DNA
#residues 1-325 #label UPT
#cross-references GB:M17433
CLASSIFICATION #superfamily NGF receptor repeat homology
FEATURE
64-105 #domain NGF receptor repeat homology #label NG2\
106-147 #domain NGF receptor repeat homology #label NG3
SUMMARY #length 325 #molecular-weight 35132 #checksum 4629

Query Match
Best Local Similarity 9.1%; Score 260; DB 6; Length 325;
Matches 51; Conservative 31; Mismatches 77; Indels 8; Gaps 5;

Db      40 caschgfyasrlcpgsdvtcspcknetflastnapacvscrgcthlsegsdct 99
QY      41 CDCPPGTLYKQHTAKWTKVCAPCPDHYTDSWHTSDCLY-CSPVCKELQYVAKQECNRT 100
Db      100 hdtvncstgnycllkqgqgcrickcpagys-ghttagdtlckcpkphysds 158
QY      101 HNRVCECKEGRY--L--ELE--FCLKHKRSCPPGFGVYQAGTPEBNTVCKRCPDGFSENRT 154
Db      159 sptercgtfnysvgnlypnvnetcctt-eghnevltkfevtl 204
QY      155 SSRAPCRKHTNCVFGLLTQKGNATHDNICSGNSRSTQKCIDVTL 201

RESULT  9
ENTRY   I54182 #type complete
TITLE   tumor necrosis factor receptor 2-related protein - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE     24-May-1996 #sequence_revision 24-May-1996 #text_change
24-May-1996
ACCESSIONS
REFERENCE I54182
#authors Baens, M.; Chaffanet, M.; Cassiman, J.J.; Van den Berghe, H.;
Maynen, P.
#journal Genomics (1993) 16:214-218
#title Construction and evaluation of a hncDNA library of human 12p
transcribed sequences derived from a somatic cell hybrid.
#cross-references MIM:93252381
#accession I54182
#status preliminary; translated from GB/EMBL/DBJ

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#molecule_type mRNA
#residues 1-435 ##label RES
#cross-references GB:L04270; NID:q339761; CDS_PTD:q339762
SUMMARY #length 435 #molecular_weight 46709 #checksum 63

Query Match 9.1%; Score 260; DB 13; Length 435;
Best Local Similarity 32.3%; Pred. No. 1,41e-23;
Matches 52; Conservative 23; Mismatches 75; Indels 11; Gaps 6

D 52 epghricscppgttyvaskcsrirdvcatcaensynelnhylltqlcrpdpv-mgl 110
      |:::|||||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
OY 34 ETSHQLCDKCPGNYLKQHOTAKMKTYCACDPDHYIDSMHTSDEC-LY--CSPVCKEL 90
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

D 111 eeiap-cskskktqtcrgpymfcaawalechceliscppgteaelkdevgsknnhcvp 169
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
OY 91 QYVQEOCKRTNRFVCECKEGRY-----LEIDFCLKHRSCCPGFGV-YQAGTPERNYCKR 144
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

D 170 ckaghfgntsspsarcpphtrcengqlyeaapqtaqdttc 210
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
OY 145 CPDGFESMETSKAPCRKHTKNCVSFGLLLTKGNATHDNTIC 185
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

RESULT 10
ENTRY 10
TITLE S32385 #type fragment
ORGANISM gene GAR protein - variola virus (fragment)
DATE 22-Nov-1993 #sequence_revision 22-Nov-1993 #text_change 22-Nov-1993

ACCESSIONS S32385
REFERENCE S32385
#authors Shchelkunov, S.N.; Blinov, V.M.; Sandakhchiev, L.S.
#journal FEBS Lett. (1993) 319:80-83
#title Genes of variola and vaccinia viruses necessary to overcome the host protective mechanisms.
#accession S32385
#status preliminary
##residues 1-138 ##label SHC
##cross-references EMBL:X69198
SUMMARY #length 138 #checksum 6036

Query Match 8.0%; Score 230; DB 16; Length 138;
Best Local Similarity 35.4%; Pred. No. 8.98e-19;
Matches 46; Conservative 19; Mismatches 56; Indels 7; Gaps 4

D 10 hnleclscppatyasrlcdskntnqtcpcsgqftsrmnhlpaciscngrcnsqvetsr 69
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
OY 37 HQLLCDKCPPTLYLKQHOTAKMKTYCACDPDHYIDSMHTSDECILCYSPVCKELQYVKE 96
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

D 70 cntthariccsppgycllkssgscacvsgtkgigysv-ghtsvygdvicspcgfigty 128
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
OY 97 CNRTHNRFVCECKEGRY--LE--IE--FELKHRSCPPGFGVYQAGTPERNYCKRCPDGF 150
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

D 129 shtvsadkc 138
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
OY 151 SNETSKAPC 160
      |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

RESULT 11
ENTRY 11
TITLE D36858 #type complete
ALTERNATE_NAMES G4R protein - variola virus
ORGANISM B28R protein (COP)
DATE 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 15-Nov-1996

ACCESSIONS D36858; S46888; S35987
REFERENCE A36859
#authors Blinov, V.M.
#submission submitted to GenBank, November 1992
#description not shown.
#accession D36858
#status preliminary
##molecule_type DNA
##residues 1-349 ##label B1I

```

[illegible]

[illegible]

```

SUMMARY                                predicted
#length 416 #molecular-weight 44654 #checksum 3542

Query Match          7.5%; Score 215; DB 6; Length 416;
Best Local Similarity 30.4%; Pred. No. 2,01e-16;
Matches 45; Conservative 27; Mismatches 70; Indels 6; Gaps 6;

Db      36 kcacllgsvvqppgvn-qltcepcldsvtvsatetpcpkctq-cvghlmsapcve 93
Oy      41 CDKCPFGYVILQKHTAKTKVTCAPCPDHY-YTDSWHTSDSECLYCSPPCKELQIVYKQENR 99
Db      94 sddavcrayyifgdelsgcseclscevgfqlmfpirdsgdtlyceecpeegtfdeanf 153
Oy      100 THNRVCECKEGRYL-ELF-FCLKRRSCPGRGGVQAGRPENNTYCKKQCPDFFENRISK 157
Db      154 dpcilpcticeenewvke-ctatsdaec 180
Oy      158 APCRKHNTGCVFGDLLTQKGNATHDNIC 185

Search completed: Wed Aug 20 09:53:47 1997
Job time : 60 secs.

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